

U.S. GEOLOGICAL SURVEY
GEORGE OTIS SMITH, DIRECTOR

STRUCTURAL GEOLOGY

COLORADO
APISHAPA QUADRANGLE



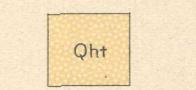
LEGEND

SEDIMENTARY ROCKS

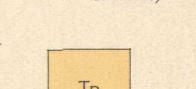
SHEET SECTION
SYMBOL SYMBOL



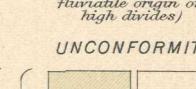
Dune sand
(derived from high terrace deposits by wind action)



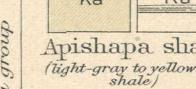
High terrace
gravel
(gravel and sand on valley slopes of present streams)



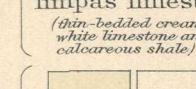
Nussbaum
formation
(gravel and sand of fluvio-deltaic origin on high divides)



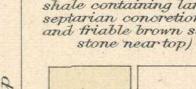
Apishapa shale
(light-gray to yellowish shale)



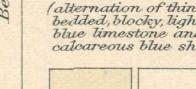
Timpas limestone
(thin-bedded cream-colored limestone and calcareous shale)



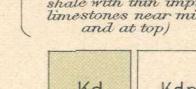
Carlile shale
(dark-gray argillaceous shale containing large percentages of fine brown sandstone near top)



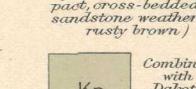
Greenhorn limestone
(alternation of thin-bedded cream-colored limestone and calcareous blue shale)



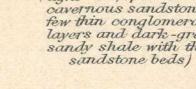
Grameros shale
(dark-gray to black shale with thin impure limestone band in middle and at top)



Dakota sandstone
(light-gray to buff-colored, cross-bedded sandstone becoming rusty brown)



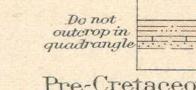
Purgatoire
formation
(light-brown to tan-colored, carbonaceous sandstone with fine thin conglomerate layers and interbedded sandy shale with thin dolomitic beds)



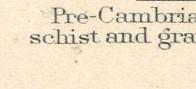
Morrison
formation
(maroon, green, and drab argillite and dolomitic limestone, and speckled gray sandstone of the thin fresh-water limestone)



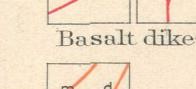
Do not outcrop in quadrangle
Pre-Cretaceous strata



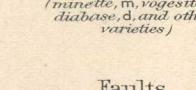
Do not outcrop in quadrangle
Pre-Cambrian schist and granite



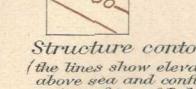
Basalt dikes



Lamprophyre
dikes
(minette, mafic gabbro, diabase, and other varieties)



Faults



Structure contours
(lines show elevation above sea level, or elevation of top of Dakota sandstone; contour interval 100 feet)

Note: Map has been cut in two and section inserted

Scale 1:250,000

1 2 3 4 5 Miles

1 2 3 4 5 Kilometers

Contour interval 25 feet.

Datum is mean sea level.
Note: Dotted lines near northern edge of sheet show position of parallel and meridians corrected to join Nepesta sheet, which is projected from later data.

Edition of April 1912.

Geology by G.K. Gilbert,
G.W. Stose, and F.P. Gulliver:
Surveyed in 1894 and 1910.

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